EXECUTIVE SUMMARY
AIRCRAFT ACCIDENT INVESTIGATION
B-1B, S/N86-00139
34th EXPEDITIONARY BOMB SQUADRON
27 FEBRUARY 2004

On 27 February 2004, while landing from a combat mission over Iraq in support of Operation Iraqi Freedom (OIF), a B-1B hydroplaned and slid off the right side of the runway at its Forward Operating Location (FOL). After a short distance, the aircraft returned to the runway and proceeded to a full stop. None of the Mishap Crew (MC) received injury and, other than the damage to the aircraft, there was no damage to personnel or property as a result of the mishap. The Mishap Aircraft (MA), B-1B, S/N 86-00139, and its MC, are assigned to the 28th Bomb Wing, Ellsworth AFB, South Dakota. The MA and MC were designated part of the 34th Expeditionary Bomb Squadron of the 40th Air Expeditionary Group at the FOL. Due to the runway departure, the MA received significant damage to all four engines and other systems. Damage to the aircraft is estimated at $7,608,129.23.

The Mishap Mission (MM) lasted 16.1 hours and proved to be uneventful until the MA returned to the FOL at approximately 0230 hours local time. The weather at the time of the mishap was characterized as periods of heavy rain and somewhat diminished visibility. From witness accounts there was standing water on the runway—although this information was not relayed to the MA during its recovery to the FOL. Wind speed and direction reported to the MC during the approach phase varied in direction and velocity but the final landing wind reported to the MC resulted in an 11 knot crosswind and a 2 knot tailwind component. The mishap copilot (MCP) was in control of the MA during the approach and landing. While landing, the MCP prematurely released the crosswind controls of the MA. This maneuver and the hydroplaning caused by the standing water resulted in the departure of the MA from the runway. Further, although there was a Supervisor of Flying (SOF) at the time of the mishap, he was not present for duty in the control tower or near the runway to monitor the approach and landing of the MA. Rather, he was in the Mission Planning Cell at the time of the accident and was unreachable. In addition, the officer scheduled for Operations Supervisor (Top 3) duty when the landing mishap occurred, was not following the progress of the MM and did not provide the correct amount of attention to its recovery phase. Approach control personnel also failed to inform the MC of the substantial amount of rain on station and the potential for standing water on the runway at the FOL. Finally, the FOL runway does not have a grooved surface to aid in the removal of water from the FOL runway in a timely manner.

There is clear and convincing evidence the primary cause of the mishap was standing water on the runway. The weather conditions and runway surface at the FOL are conducive to standing water and hydroplaning. However, there is also clear and convincing evidence that the standing water could have been overcome if not for the failure of flight supervision (i.e., the Top 3 and SOF) to monitor the progress of the MM and ensure the MC was advised of the current landing conditions (i.e., the runway surface condition) at the FOL. Additionally and also supported by clear and convincing evidence, other significant contributing factors were the crosswind landing technique used by the MCP, the lack of grooving on the FOL runway surface, and a lack of direct transmission from approach control at the FOL to the MC regarding the local weather conditions and surface condition of the runway.